



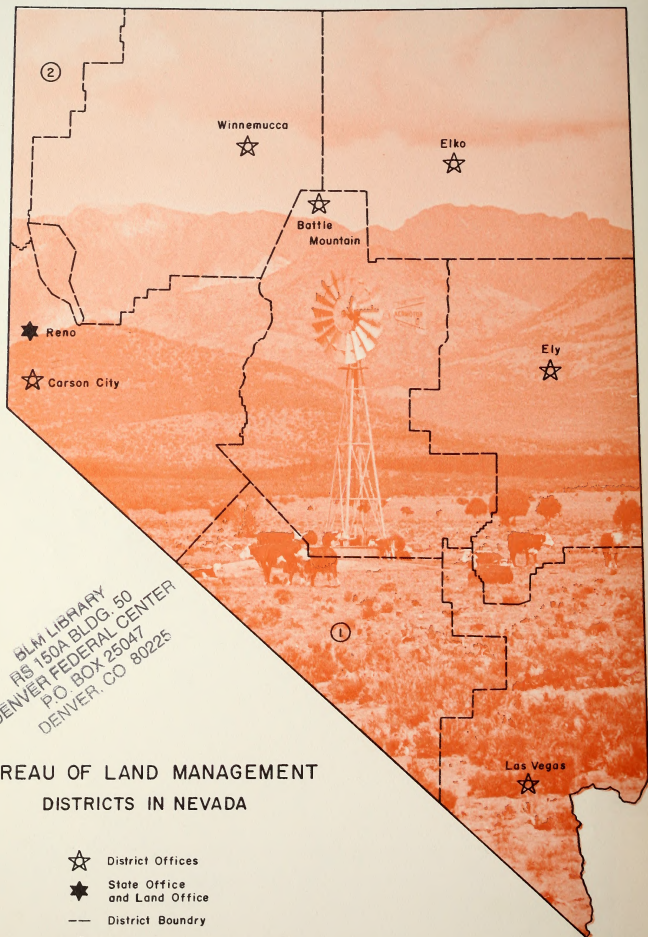
88047252



BLM AT WORK IN NEVADA 1961

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

HD
243
.N3
L362
1961



BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

BUREAU OF LAND MANAGEMENT DISTRICTS IN NEVADA

- ☆ District Offices
- ★ State Office and Land Office
- District Boundry
- ① Administered by Las Vegas Office
- ② Administered by Susanville Office

ID 88047252

H0
243
.N3
L362
1961

THE NATIONAL LAND RESERVE OF NEVADA - OVER 46 MILLION ACRES - SPANS NEARLY 70 PER CENT OF THE AREA OF THE STATE. ITS QUALITIES ARE THE NATURAL ENDOWMENTS OF NEVADA, THE DESERT, MOUNTAIN STREAMS, AND CLEAR SKY. THE MAJOR INDUSTRIES OF NEVADA, LIVESTOCK AND MINING, ARE DEPENDENT ON THE RESOURCES OF THESE PUBLIC LANDS. BOTH CITIZENS OF NEVADA AND TOURISTS SEEK THIS VAST COUNTRY TO HUNT, FISH, CAMP, PROSPECT, AND TO RELAX AWAY FROM THE CONCRETE AND STEEL OF THE CITIES. THE NATION DEPENDS ON THE RESOURCES OF NEVADA FOR MINERALS AND FOR FOOD.

THE NATIONAL LAND RESERVE WILL CONTRIBUTE MAXIMUM BENEFITS TO NEVADA AND THE NATION ONLY WHEN ITS USES ARE BALANCED IN HARMONIOUS MANAGEMENT. BLM MANAGES ITS PUBLIC LANDS TO ACHIEVE MAXIMUM PRODUCTION FOR USE BY AMERICANS - NOW AND IN THE FUTURE.

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

Public land – and its use – has been a concern of Americans from the birth of this nation. The thirteen original colonies presented the new federal government of the United States with 200 million acres of western wilderness. From that day, the public land has been a reserve of strength for the nation. The benefits flowing from this reserve have varied with the needs of the developing nation. It has been used to encourage investment and development, to reward veterans for faithful service in our wars, to stabilize communities, and to yield food, raw materials, and recreation.

The youthful United States flexed its muscles and stretched westward and southward until it spanned the continent. Today it claims a total area of 2.3 billion acres. During its history, the federal government has owned 80 per cent of this area – 1.8 billion acres. The public land, known as the public domain, has been used to compliment the spirit, courage, and creativity of Americans to bring this nation to its present position. Land laws, such as

the Homestead Act, and legislation granting land to states, schools, railroads, and wagon road builders, have distributed 1.1 billion acres to private ownership for the development of the country.

The United States still owns 771 million acres of public land, but the needs of a mature nation are not those of its youth. Today the public land serves the people under management for a variety of uses as complex as our society. The Department of the Interior with its team of agencies – Bureau of Land Management, National Park Service, Fish and Wildlife Service, and Bureau of Reclamation – administers 550 million acres of this land. The Bureau of Land Management, BLM manages 477 million acres of public land, or 62 per cent of the total public ownership, in 28 states. BLM manages the off-shore lands of the United States, much of Alaska, and the forest and range of the western states.

BLM, or its predecessor, the General Land Office, has long been a part of the life of Nevada. Land surveyors employed by the General Land Office



Round-up on the Mount Wilson crested wheatgrass seeding approximately 20 miles north of Pioche.



first entered Nevada in 1861. Even then, the General Land Office was not young, for it was organized in 1812. The Grazing Service, the other predecessor of BLM, was organized in 1934, under provisions of the Taylor Grazing Act to manage the resources of the public domain. BLM was established in 1946 by combining the General Land Office and the Grazing Service.

Approximately 86 per cent of the land in Nevada is owned by the federal government. BLM manages over 51 million acres of the Nevada federal land – 46.5 million acres of this BLM land has been termed the national land reserve.

The national land reserve is public land which has never passed from ownership by the United States nor has it been selected for special uses such as military reservations, national forests, national parks, or national monuments. President Kennedy, in his natural resources message to Congress of February 23, 1961, ordered increased production from the national land reserve. BLM is striving to manage this public land to assure the greatest flow of benefits to the nation, both for present strength and for future security.

The BLM land of Nevada is a rich reserve of varied benefits. Minerals, beef, wool, forest products, water – and relaxation – flow from this land. Often the same land yields simultaneous benefits to several users. In Nevada, livestock may graze among trees destined to be Christmas trees while a deer hunter stalks a buck nearby and a tourist stops to photograph the landscape; all this on land whose vegetative cover protects the water supply of a civilization dependent on water. The demand on the natural land reserve are often complimentary, but occasionally they are competitive. BLM must balance the uses of the public land so that maximum production is achieved.

The national land reserve in Nevada produced more than \$3,000 in mineral value for each citizen of the state in 1961; it yielded 350 pounds of beef and 75 pounds of lamb for each citizen; every family in Nevada could have cut a Christmas tree; and every licensed hunter could have killed a deer. The wild and rugged beauty of Nevada's public land called to many to travel, hunt, fish, camp, picnic, and to just enjoy the serenity of nature.





Sheep on BLM land in Nevada - seedings are valued as lambing grounds.

The receipts for BLM operations in Nevada for fiscal year 1961 were approximately \$2 million. These receipts were produced as follows:



Funds Returned to the State of Nevada
and Counties from BLM Receipts

	Amount to 1959	Amount - 1960
Sales of Public Lands and Timber	\$ 141,300	\$ 31,500
Mineral Leases and Permits	2,858,700	160,400
Taylor Grazing Leases	35,300	6,900
Taylor Grazing Districts	1,054,700	48,200



Joshua trees on the desert near Las Vegas – the national land reserve of Nevada offers a variety of scenery and vegetative ground cover.

BLM in Nevada is organized on a state and district basis. The office of the State Director is located in Reno. All programs, goals, and operations of BLM are brought to focus on the resources through the district managers. Nevada contains six BLM districts which vary in size from approximately 5 million acres to approximately 8 million acres. BLM

programs are tailored to local needs through the function of its districts.

The BLM land office for Nevada records all land transactions on BLM land in Nevada. This office, also, is located in Reno.

The following is an account of the 1961 management program which BLM brought to its public land in Nevada.



The Cave Valley Seeding in Lincoln County.



5

Land Surveys

The first public land surveys were conducted in Nevada in 1861. For 100 years, BLM surveyors, or their predecessors of the General Land Office, have been marking the boundaries and corners of the public land.

The men who made the early surveys were a hardy breed. They worked under hazardous conditions in country often unexplored by white men. Their work was accurate for the crude instruments of the day. Survey corners established by these early surveyors were well marked, but the century has taken its toll of corner monuments. Fires and decay have obliterated much of the early work.

More recent surveys have been plagued with problems. Corners recorded as having been established are often missing. These missing corners must be re-established. Fortunately, many old corners were well monumented and are clearly marked with substantial stone mounds. These monuments are the basis of modern resurveys.

In 1910, the federal government discontinued its previous program of surveying the public land through contracts with private surveyors. In that year, the government began to hire surveyors. Most surveys since 1910, called the "Iran pipe surveys," are very accurate. Today, the cadastral engineers are the official land surveyors of the United States. They, alone, are authorized to establish the boundaries of the public lands.

The equipment used in public land surveying has changed radically over the years. The compass and chain have given way to the modern transit and to electronic measuring devices. The horse has been replaced by the jeep or the helicopter.

The identification of the public land, surveying, is the first step in land management. Management of the national land reserve in Nevada has progressed rapidly on the basis of past surveys, but much survey work remains to be done; approximately 15.5 million acres remain unsurveyed and 30.7 million acres are in need of modern resurveys and remonumentation.

During fiscal year 1961, BLM has emphasized a new approach to its surveying work in Nevada—the preparation of protraction diagrams of the unsurveyed land. These diagrams are projections of survey lines based on existing section corners on the edges of the unsurveyed area. They are the basis for the detailed plans to be followed when the public land is surveyed. They provide simple control of unsurveyed areas for the description of lands to be leased or to be effected by other management activities. The protraction program in Nevada is a valuable tool for the inventory and classification of the national land reserve.

New surveys and resurveys continue in Nevada on a system of priority based on the management needs of BLM and other federal agencies.



One of the first section corner markers to be established in Nevada – a juniper stake – and a modern "brass cap" section corner monument.



BLM surveyors use a tellurometer – an electronic measuring device.



Lands



6

Land classification is the foundation of the BLM resource management program for the national land reserve. Before the proper use or uses of a tract can be identified, all of the present and potential uses of that tract must be analyzed in the light of the economic requirements of the community where the tract is located. The identification of the proper use of public land is termed "land classification." Classification attempts to prevent the misuse of land with its resulting resource deterioration. It directs the land toward an ownership – public or private – which can produce maximum benefit to the community and the nation. A program of harmonious uses built on a basis of proper land classification will achieve the highest production from the resources of the national land reserve.

Traditionally, land classification has been conducted on a tract-by-tract basis as applications for the use of public land were received from the public. These applications were filled under land laws designed to meet the needs of a young, developing nation. These laws, like the powder horn and muzzle loading rifle, are relics in a modern world which has developed new national requirements for the public resources. Under new management concepts, many applications filed under the old land laws were rejected. Applicants were often misled by unscrupulous land locators and promoters who attempted to exploit the land laws by applying them

to situations to which they were not suited. In most cases, favorable action on such applications would result, at best, in the heartbreak of trying to farm marginal land or trying to develop homesites in desolate country, at worst, in the speculative resale of the land. Thousands of such applications awaited processing by BLM. Positive management of the public land suffered while the resources of BLM were used to process and generally reject these applications.

Secretary Udall, in February 1961, declared an 18-month moratorium on most non-mineral applications for the use or acquisition of the national land reserve. This moratorium is designed to allow BLM to process the backlog of pending applications. During this 18-month period, BLM will also study the public land requirements of the United States. Policies will be developed and legislation will be recommended which will enhance the productivity of our public land.

During 1961, BLM worked to reduce its backlog of land applications. Final action was taken on over 5,800 applications for land and over 2,900 filings for mineral rights. Approximately 1,500 deeds, called patents, were issued for land in excess of 20,500 acres. In addition to cases involving the transfer of title of public land, BLM issued leases, permits, and right-of-way involving tracts of the national land reserve.

An improved small tract site on the national land reserve – Barker Crank in White River Country.

Public interest in the agricultural laws – the Homestead, Desert Land, and Pittman Acts – has been high in Nevada. These laws have been instrumental in transferring title to agricultural land from the federal government to private owners. During 1961, BLM allowed 271 agricultural entries for 115,817 acres. Patents were issued for 11,509 acres under 50 entries. These laws have contributed much to the development of the state. Many people still hope to acquire land through them; however, few people will be successful because most of the national land reserve in Nevada is unsuited for agriculture. Water is in short supply and soils are unsuited for cultivation. For many years, the marginal farms of the United States have been a source of poverty and public expense. BLM would perform poor service to Nevada and the nation by adding to this problem by allowing agricultural entry on its marginal land.

Many tracts of public land in Nevada can serve the community best in private or in state or local governmental ownership. Over 1,400 patents for 5,121 acres were issued in 1961 for small tract uses such as residences, summer homes, and business sites. Another 100 acres were made available for parks and recreation areas, school sites, summer camps, municipal sites, and other public purposes. Sales of public lands by BLM also provides sites for industrial developments. The national land reserve continues to aid the expansion of the economy of Nevada.

7 A new conservation policy for the Department of the Interior was announced by Secretary Udall in February. This policy provides standards to be followed in achieving the best allocation of the public resources to assure full value to the public from the use of these resources. The following standards are

used in measuring the effectiveness of resource allocation in satisfying the public interest:

- (1) The public must receive full return from the resource in terms of money or other values.
- (2) The resource will be allocated to meet actual public development needs generally, rather than be used by limited numbers of the public for pure speculation purposes under antiquated public land laws.
- (3) The land requirements of the public land management agencies at federal, state, and local levels of government will be fully considered in all phases of the BLM management program. No lands will be classified for title transfer unless positive showing can be made that no public need for the land exists.
- (4) Public land which is required for some public use, but which is not now available under any public land laws, will be classified for retention in public ownership until the proper legislation can be passed.
- (5) A decision affecting the disposition to be made of any public land must consider all of the uses of the land. The classification must reflect in a positive manner the service of the land to the public interest.

BLM developed a modern comprehensive approach to land classification in 1961. Areas of similar physical, social, and economic characteristics are designated "master units." A more comprehensive and consistent management program can be developed to meet the needs of the area by inventorying, evaluating, and classifying public land on a master unit basis. The master unit also serves as an efficient unit for the long-term management of soil, vegetation, minerals, and wildlife. Applications for the use of public land will be processed against the background of the master unit classification.

BLM lands serve Nevada in many ways – often they are used for public developments such as roadside rest areas.



Ely, Nevada – BLM lands offer room for population growth.

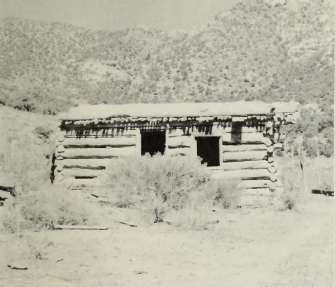


BLM lands serve the expanding industry of Nevada.



East Ely – Expanding populations require more schools.





1861 – the public land provided home sites for the pioneers of Nevada.



1961 – the public land provides residential, business, and recreation sites for the people of Nevada.



Recreation

Stand a moment along any major highway in Nevada, and notice the cars with luggage racks, trailers, pickups with campers, and boats being hauled in every direction – recreation-minded travelers, all. Whether they are local Nevadans off on a picnic, vacationers, or out-of-staters passing through, it will be obvious to most of them that recreation development in Nevada has not kept pace with demand. Facilities are often lacking – usually overcrowded.

The population of Nevada has increased by 79 per cent in the last decade. This is the second largest increase shown by any state in the nation. A brief survey of your road map will reveal the fact that Nevada is a traffic bridge between the Sacramento-San Francisco area and both the Idaho and the Salt Lake City areas. The recreation demand caused by the great number of people living and visiting in Nevada far exceeds the existing facilities. Nevada has only three state parks, three historical monuments, one scientific monument, two unimproved tracts designated "recreation areas," twenty county parks or recreation areas, thirty-one campgrounds under the management of the Forest Service, Department of Agriculture, sixty highway wayside stops, and one national recreation area. These facilities are woefully overused.

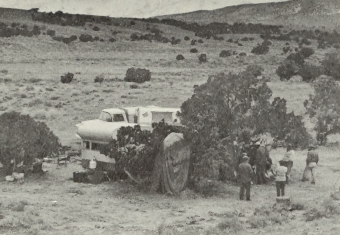
The national land reserve in Nevada is the key to satisfying the expanding recreational demand

through increased recreational facilities. BLM conducted an inventory of potential recreational sites in Nevada during 1961. This study identified 62 tracts for which immediate recreational development would be desirable. They were grouped as follows:

8

Type of Site	Number of Tracts
Camping, picnicking, boating, hunting, fishing,	26
Historical areas to be preserved	9
Interpretive areas of archeological, geographical, or ecological importance	12
Waysides	11
Scenic drives	2
National Park character (areas)	1
Proposed reservoir construction	1

Most of these tracts are presently receiving informal use. BLM is planning developments on these tracts as funds are available. They are available to local, county, and state agencies for use in their recreation programs.



A hunting camp near Elko - deer hunters from Nevada and the surrounding states rely on the public lands for hunting and camping.



A family enjoys a picnic on the sunny Nevada desert.



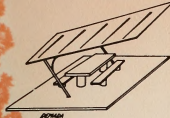
Recreation specialists map and plan a new recreation site on BLM land between Carson City and Reno - 62 tracts on BLM land have been identified for recreational development.

Fishing on Cleve Creek in the Egan Mountains of the Ely BLM district - the clear streams of Nevada offer year-round trout fishing.

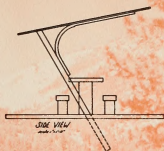


Formal recreation facilities are not necessary for many who enjoy the national land reserve. These people come to hunt the wildlife of the range and woodlands, to fish in the clear mountain streams, to photograph the awesome scenery, to hunt Indian artifacts, or even to search for gold. BLM recognizes the value that the national land reserve contributes to Nevada through its recreational qualities. Areas having recreation potential will be retained in public ownership as multiple use areas. Management in these areas will recognize recreational values.

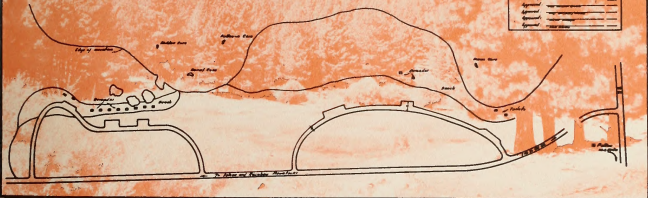
BLM is planning its recreation program in Nevada to enhance and complement the developments by other recreational agencies, both state and local. When tracts can best be developed by other agencies, title transfer or leases for these tracts will be arranged. BLM will develop those tracts which are most in need of federal development. This program will assure the greatest yield of recreational values from the national land reserve.



PLAN VIEW



SIDE VIEW



Recreation plans are being drawn for the development of BLM tracts.



Minerals¹⁰

Nevada is richly endowed with mineral resources. History has given immortality to fabulous Virginia City where over a billion dollars in silver and gold has been produced. Goldfield, a notorious early mining town, and many other mining areas of Nevada, have produced millions of dollars in silver and gold.

Today, Nevada produces minerals valued in excess of 75 million dollars annually. Most of this mineral wealth has been produced from the national land reserve.

The mines of Nevada supply the nation with copper, iron, antimony, manganese, lead, and zinc. Oil, too, flows from the depths of the national land reserve. The space age has placed new demands on the mineral-rich Nevada public lands: tungsten, uranium, mercury, beryllium, and titanium are found here. Modern prospectors, using new methods, are uncovering deposits that were of no value when the pioneers made their fabulous strikes of gold and silver.

Prospectors continue to search the national land reserve for deposits of valuable minerals. When

discoveries are made, the prospector may establish a lode, placer, or millsite claim. He may begin mining operations on his claim after he has legally completed the filing procedure. Title to the claim, a patent, may be secured by the claimant if the claim proves to be valid. No patent is issued for a claim on public land until the claim has been examined, and the validity verified, by BLM mining engineers.

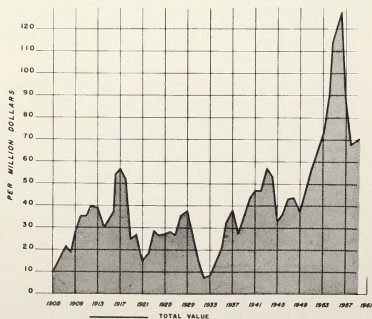
The mining laws permit the miner to live on his claim for the proper operation of his mine. The tremendous demand for land in Nevada has prompted many people to attempt to exploit the mining laws for the purpose of acquiring title to land for homesites and for recreation sites. Claims located for these purposes seldom have a mineral discovery. Usually the only development on such a claim is the construction of a residence. These are often of considerable value. BLM in examining and prosecuting all cases of fraudulent occupancy on public land.

Mining claims are often found on land which is being sought for other purposes. BLM examines such land. If it is valuable for mineral production,



Open pit copper mine in Nevada - one of the major industries of the state.

VALUE OF MINERAL
PRODUCTION IN NEVADA, 1905-'59



no conflicting uses which might be incompatible with the development of the mineral resource are allowed.

Some minerals are available to developers by lease rather than through the establishment of a claim. These include coal, phosphate, sodium, oil, oil shale, gas, and potassium. Application for mineral leases are filed and processed in the BLM Land Office for Nevada at Reno.

Sand, gravel, and other mineral materials can be purchased from BLM. Community pits are often established on public land to meet local needs. They are administered by the BLM district offices.

BLM initiated an inventory of the mineral resources of the national land reserve in 1961. The data gathered in this project will provide a basis for more intensive land management planning and for comprehensive classification to assure the balanced use of the public resources.



Sand and gravel – important to the growing communities of Nevada – are abundant on the national land reserve.



A BLM mining engineer examines an adit – mining exploration tunnel – near Reno.



Range Management

12

The livestock industry is basic to the economy of Nevada. Self-reliant men of this industry have worked to help shape this state from the hills and desert. The 46.5 million acres of national land reserve in Nevada is the backbone of the livestock industry. The management of the public range resource directly affects the welfare of the state. A productive national land reserve means a prosperous livestock industry.

The demands on the public range are many and varied. Over 95 per cent of the range livestock of Nevada, 345,000 cattle and horses and 456,000 sheep, graze on this land sometime during the year. Approximately 125,000 deer, 5,000 antelope, 2,200 big horn sheep, and 170 elk also depend on this range. The public range of Nevada abounds with small game – grouse, chukars, doves, quail, cottontail rabbits, ducks, and geese. The management of the resources directly affects the population and distribution of the wildlife of Nevada. Any range management consideration must involve this wildlife.

The BLM range management program is based on an intensive inventory and analysis of the public range resource. Detailed field studies are conducted

to determine the capacity of the range. Studies are made of the private properties dependent upon the federal range. The data collected in these studies form the basis for the adjudication program of BLM. In the adjudication process, the federal range is apportioned to the qualified range users under the provisions of the Federal Range Code. Realistic provisions are made in this apportionment for the use of the wildlife of the area. Without this provision, the use of the range would exceed its capacity, resulting in range deterioration.

Range condition and trend studies are conducted every five years over the entire federal range to determine the effect of BLM management practices on the vegetation and soils of the range. Adjustments in management are based on this data.

Nevada is a desert state with annual precipitation as low as 4" to 5" in certain areas. This extremely low rainfall makes necessary the conservation of available water for the production of forage. BLM constructs gully plugs, check dams, and stock water reservoirs in an effort to conserve water. Water spreading structures spread flow water over range land. Springs are developed to supply water to livestock. Where no water is avail-

able, pipelines bring it from other sources. Wells are developed with modern equipment where early stockmen never dreamed of reaching water. These developments encourage better distribution of livestock over the range and an increase in the production of the range.

Truck trails are being built into areas once accessible only by horse or on foot. These trails permit more efficient management of livestock, better range administration, quicker access for fire control, and more enjoyment of the resource by recreationists.

The following BLM range improvements have been completed on the public lands of Nevada:

	Completed F. Y. 1961	Total
Check dams	11	54
Pitting and furrowing (acres) ..	500	3,000
Pipelines (miles)	41	217
Reservoirs	19	637
Springs	37	647
Water spreading (acres)	—	360
Water storing facilities	4	93
Wells	10	622
Bridges	—	6
Cattleguards	20	158
Corrals	—	263
Truck trails (miles)	4	1,491
Stock trails (miles)	—	140



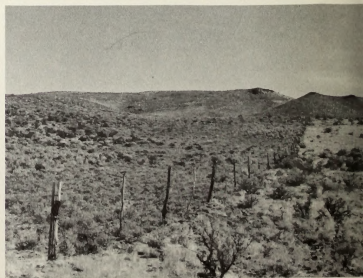
A range seeding in Nevada (the light area in the lower half of the picture). Valuable gross land replaces sagebrush — grazing capacity is increased for livestock and wildlife. BLM has seeded 421,000 acres in Nevada.

Approximately 5 million acres of federal range in Nevada support big sage brush and other low value forage plants. These areas are being successfully rehabilitated by killing the brush with chemicals or machines and seeding crested wheatgrass, a perennial grass. Newly seeded pastures are protected from premature use by fences. Fences also provide good control of drifting livestock and a method of separating classes of livestock. Range allotments are easily separated by fences.

BLM has accomplished the following range rehabilitation projects:

	Completed F. Y. 1961	Total
Brush control (acres)	10,385	24,322
Seeding (acres)	33,585	421,000
Fencing (miles)	335	3,378

Fences aid in controlling the distribution of livestock in range management. The range on the right of this fence supports a good stand of grass and bitterbrush — it is properly grazed. A heavy stand of sagebrush has invaded the range on the left of the fence — this is the result of over-use. BLM has constructed over 3,000 miles of fence on public range land.



A heavy duty brushcutter clears sagebrush near Ely. Desirable grass was seeded on this area. BLM has controlled brush on over 24,000 acres in Nevada.



A BLM range technician conducting a vegetative survey on BLM range to determine the amount of forage which is available for livestock and wildlife.





The Mt. Wilson seeding - 20 miles north of Pioche. Modern range improvements produce water where none was previously available. This allows more complete and uniform use of the range by livestock and wildlife.

Halogeton, a noxious range plant, occupies 4.5 million acres of federal range in Nevada. This is the largest area of infestation suffered by any state. Eradication of halogeton involves killing the plant through the use of herbicide chemicals, plowing, and seeding to perennial grass. Proper management of native or seeded perennial grass is necessary for the permanent exclusion of halogeton. During 1961, BLM conducted weed control projects on 4,100 acres. The total acreage of weed control projects on federal land in Nevada is 10,700 acres. BLM is cooperating with the University of Nevada in research to develop and evaluate improved methods of halogeton control. BLM has contributed approximately \$16,000 annually for this research.



Livestock operators on the federal range have contributed approximately 40 per cent of the total cost of the range conservation and improvement projects on the national land reserve in Nevada. Close cooperation with public and private management groups in planning, research, and management is developing the BLM range toward its highest potential.

BLM range managers conduct periodic range field tours for members of the livestock industry and the public to demonstrate how modern range management helps increase forage and water for livestock and wildlife.





Mule deer buck.



Two bull elk.



American pronghorn antelope buck.



Desert bighorn rams.



Bighorn sheep lamb - 6 hours old.

Wildlife on Nevada Range



16



Antelope kids - one month old.



Mule deer fawn - 2 weeks old.



Juniper trees cut for post are used for fence construction throughout Nevada and the surrounding states - 55,000 posts were cut on BLM land in 1961.



Forestry

The woodlands of the Nevada national land reserve yield three primary products. These are poles and posts, Christmas trees, and ornamental plants. White fir Christmas trees, corral and barn poles, and potential saw timber are found in the higher elevations. Juniper fence posts and pinion pine Christmas trees are harvested from the juniper-pinon woodland type. The Joshua tree, prickly pear, barrel cactus, and similar plants from the southern desert are sold for ornamental planting.

Over 28,000 Christmas trees were offered for competitive sale in 1961. Purchasers cut 24,000 trees and sold them locally and in the Salt Lake and San Francisco areas. BLM also issued 6,500 Christmas tree permits to citizens of Nevada to allow them to cut family Christmas trees.

BLM sold 7,000 juniper posts by competitive sales; 25,000 posts were sold directly to local residents for ranch improvements. In addition, 23,000 posts were cut for fencing on lands administered

by BLM or other governmental agencies, and for lands being developed under desert land entry laws.

New products offer hope for an expanded use of the woodland resources of Nevada. One such product is an outdoor barbecue fuel which is made from native mountain mahogany.

The unauthorized use of the public resources has been a serious obstacle to BLM management. Such use disrupts management planning and deprives the public of the rightful returns from its resources. New legislation, public education, and more intensive administration of the woodland resources are slowly solving this problem.

BLM revenues from the woodlands of the national land reserve in Nevada totaled \$28,000 in 1961. The increased demand for woodland products promises a bright future for the management of this resource.





Harvesting Christmas trees on the national land reserve near Elko for markets in Salt Lake City - 24,000 Christmas trees were cut by purchasers in 1961. BLM issued 6,500 free Christmas tree permits.



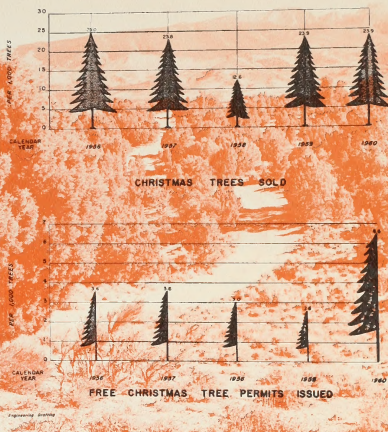
A BLM conservationist and a Fish and Wildlife Service biologist inspect tree and browse damage on the 1961 Wheeler Pass fire near Las Vegas.



A BLM technician inspects a ponderosa pine "healing-in-bed" - these young trees will be planted on part of the national land reserve which was denuded in the Wheeler Pass fire.



CHRISTMAS TREE PROGRAM



Joshua trees and other cactus plants are sold by BLM as ornamental yard plants in the Las Vegas area.



Wild fires endanger both range land and forests. Trained BLM personnel using specialized fire fighting equipment suppress range and forest fires - 131 fires burned 5,200 acres on BLM land in Nevada in 1961.

Resource Protection

Fire burned over 5,200 acres during fiscal year 1961 in 131 fires. Suppression on these fires cost BLM \$50,000.

The BLM fire organization is supplemented by approximately 110 per diem fire guards. These are local ranchers and residents who are appointed annually by BLM. Per diem guards aid BLM in fire detection. They have fire fighting tool caches which can be used in early action on fires. They also act as key fire fighters on large fires where their experience is used to direct temporary fire fighters employed by BLM.

Three districts conducted training schools in 1961 to train all members of their staffs for their respective jobs in the fire control organization.

Modern techniques are employed by BLM to suppress fire on the national land reserve. The BLM radio communications system greatly strengthens fire suppression operations. BLM is cooperating with the State of Nevada and the Forest Service, Department of Agriculture, in the use of borate dropping airplanes for initial action on fires in western Nevada.

Generally, BLM fire fighting equipment in Nevada has consisted of converted surplus military equipment. Initial cost of such equipment has been small, but maintenance costs are very high. Performance has been limited. BLM plans to replace this obsolete equipment with new commercial suppression equipment as soon as possible. Small tools and supplies are being located in fire caches throughout the state where they will be available to supplement the resources of the districts on large fires.

19 Fire represents the greatest threat to the resources of the national land reserve. The protective cover of the range can be removed in an instant, baring the soil to erosion by wind or water. Forage lost to fire can support no livestock. Fish cannot live in the silted streams resulting from a burned watershed; wildlife find no cover; and the beauty of the landscape is marred.

BLM protects 51 million acres of public land in Nevada from fire through the efforts of its fire control organization. Each district is responsible for fire protection within the district. Large fires are controlled through the cooperative effort of BLM forces throughout Nevada.

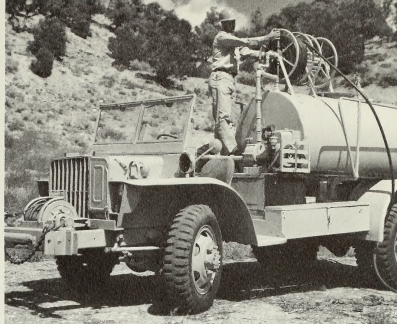
The fire hazard on the BLM lands in Nevada during 1961 was classified as follows:

High risk	5 million acres
Medium risk	6 million acres
Low risk	30 million acres

Fire risk classification varies yearly with the changes in vegetative growth and climatic conditions. Annual grasses did not develop well in 1961 because of draught conditions; therefore, the hazard usually associated with this type of vegetation did not develop. This condition was offset by the extremely dry perennial grasses. The net result was a greater than average critical hazard on the public lands in Nevada.



Each year BLM men are trained in modern fire suppression practices.



Surplus military equipment is converted into fire fighting equipment for use by BLM in Nevada.

Engineering

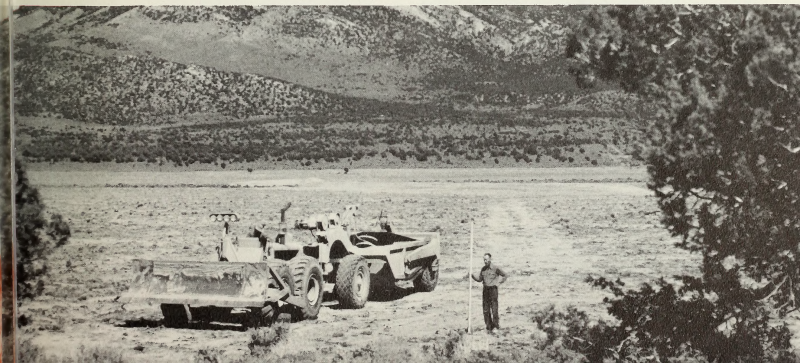
Modern technology has provided tools which have allowed land managers to improve our natural resources far beyond the limits imaginable by the pioneers of Nevada. Huge tractors move thousands of cubic yards of earth to construct a reservoir; powerful drills probe the depths of the public land for water; pipe lines carry water many miles to parched areas previously unusable for lack of water; roads are built where even wagon trails once were impractical; and radio installations provide instantaneous communication and coordination of operations. Such projects require trained engineers to plan and supervise installations.

BLM engineers join forces with range and forestry technicians to bring the most advanced improvements to the national land reserve. They plan and often supervise the construction of detention dams, water spreaders, gully programs, pipelines and access roads. Controls governing these projects are established by BLM engineers. Engineering students are hired during summer months to assist in engineering range improvement projects. Both BLM and the students gain much from this program.

20

Engineers improved and maintained the BLM radio communications system during 1961. This system includes mobile and portable units, base sta-

Large range improvement structures, such as the Cave Valley Waterspreader in Lincoln County, are designed by BLM engineers.





This reservoir was designed and constructed by BLM - 637 reservoirs have been constructed by BLM on the public lands in Nevada.

tions, and repeater stations. When complete, this system will cover 80 per cent of Nevada. Radio communications have facilitated fire control and have made BLM administration more efficient.

BLM engineers are planning the construction of new buildings and yard facilities in six districts.

The cartographic section of the engineering division is located in Reno. It aids the management activities of BLM through its mapping, drafting, and reproduction services. During 1961, this section

refined several of the 101 quadrangle maps which cover Nevada. These new topography maps are valuable to the public as well as to BLM technicians because they define the location of the public land.

BLM mapping facilities in Nevada will be expanded to complete 35 master unit classification maps to be utilized in the classification program.

BLM maps are a source of information which enable managers to refine management on the national land reserve.

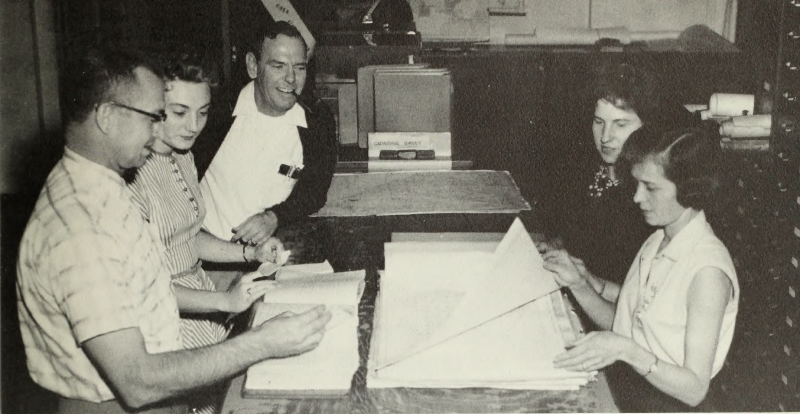
21

The BLM cartographic office in Reno produces maps and plans for all engineering work.



Engineering students are hired each summer to help in the surveying of range improvement projects.





"Doing a land office business" - the Reno Land Office maintains the official title and survey records for the public land in Nevada.

Land Records

22



Central Nevada.

BLM maintains the official title and survey records for the public land. These records for Nevada are maintained in the BLM Land Office for Nevada in Reno. They are among the most vital records of the state because they record the original transaction for any private tract in the state which was once public land. A record of the basic land surveys in Nevada is also maintained in the Land Office. These include the field notes of the surveyor and a map or diagram - called a plat - of the survey. These records serve both BLM administrators and the public. Copies of these records may be purchased at the Land Office.

Every action which affects the title to the public lands of Nevada is recorded in the land records. Every application for a permit, lease, right-of-way, patent, or land reservation is recorded by serial numbers in the "Serial Register" books.

Plat books, consisting of bound copies of survey plats, show the exact location, by serial number, of application, leases, permits, right-of-way, and patents. These records protect those who hold rights to the public land from damage by conflicting management practices. They are basic to comprehensive management on the national land reserve.



Cherry Creek was a thriving mining town in the 1860's. Today it is a tourist attraction north of Ely.

PHOTO CREDITS

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER CO 80225

Nevada State Highway Department
pp. 9, upper right
22, lower

Irv Fehr
pp. 7, lower left
11, top
23

Mike Kilpatrick
Nevada Cooperative Extension Service
p. 24

Don Neal
University of Nevada
p. 25

All other photos are by BLM employees.

R'S CARD

362 1961
of Land
in Nevada, 1961

DATE
RETURNED

OFFICE

(Continued on reverse)

HD 243 .N3 L362 1961
U. S. Bureau of Land
Management.
BLM at work in Nevada, 1961

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225



25

Summer sheep range - Gold Canyon in the Ely BLM District.